

Intel **Developer** Forum



intel

Momentum for the Enterprise

Mike Fister

Senior Vice President
General Manager,
Enterprise Products Group

Sandra Morris

Vice President,
Chief Information Officer
Enterprise Business Group



What Customers Tell Us



Better



Faster



Cheaper

Matt Leininger






Computational Scientist



Sandia
National
Laboratories

Exceptional Service In The National Interest

HPC Demands Growing

1960s	1970s	1980s	1990s	2000s
				
Airfoil	Weather Modeling	Pharmaceutical Structured Biology	Nuclear Modeling Human Genome Ocean Circulation	12M Cell Reservoir Model Nuclear Stewardship Protein Folding Global Simulation

Analysis Complexity & Data Sizes Increasing

HPC Community Coming Together

Advanced Computing
Program



Eco-system
Enabling



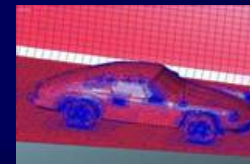
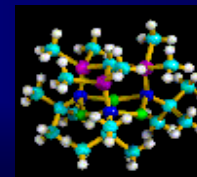
Strategic
Collaborations



Products,
Solutions, and Services



End User
Engagement





Michel McCoy
Deputy Associate Director
Lawrence Livermore National Laboratory

Intel® Itanium® Processor Family Roadmap

Multi-Processor (MP) Capable

Leading Performance

Itanium® 2 Processor (Madison) 1.5GHz, 6M 1.4GHz, 4M 1.3GHz, 3M	Itanium 2 Processor (Madison 9M) >1.5GHz, 9M	Montecito <i>Dual Core,</i> <i>Larger Caches,</i> <i>90nm Technology</i>	Tanglewood <i>Multi Core</i>
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Dual-Processor (DP) Capable

Leading \$ / Flop

Itanium 2 Processor (Madison) 1.4GHz, 1.5M, DP	Itanium 2 Processor (Madison) 1.4GHz, 1.5M, DP	Montecito-based <i>DP</i>	
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Dual-Processor (DP) Capable

Lower Power

LV Itanium 2 Processor (Deerfield) 1.0GHz, 1.5M, DP	LV Itanium 2 Processor (Deerfield Refresh) >1.0GHz, DP	Deerfield Follow-on DP, Low Voltage	Future <i>DP, Low Voltage</i>
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2003

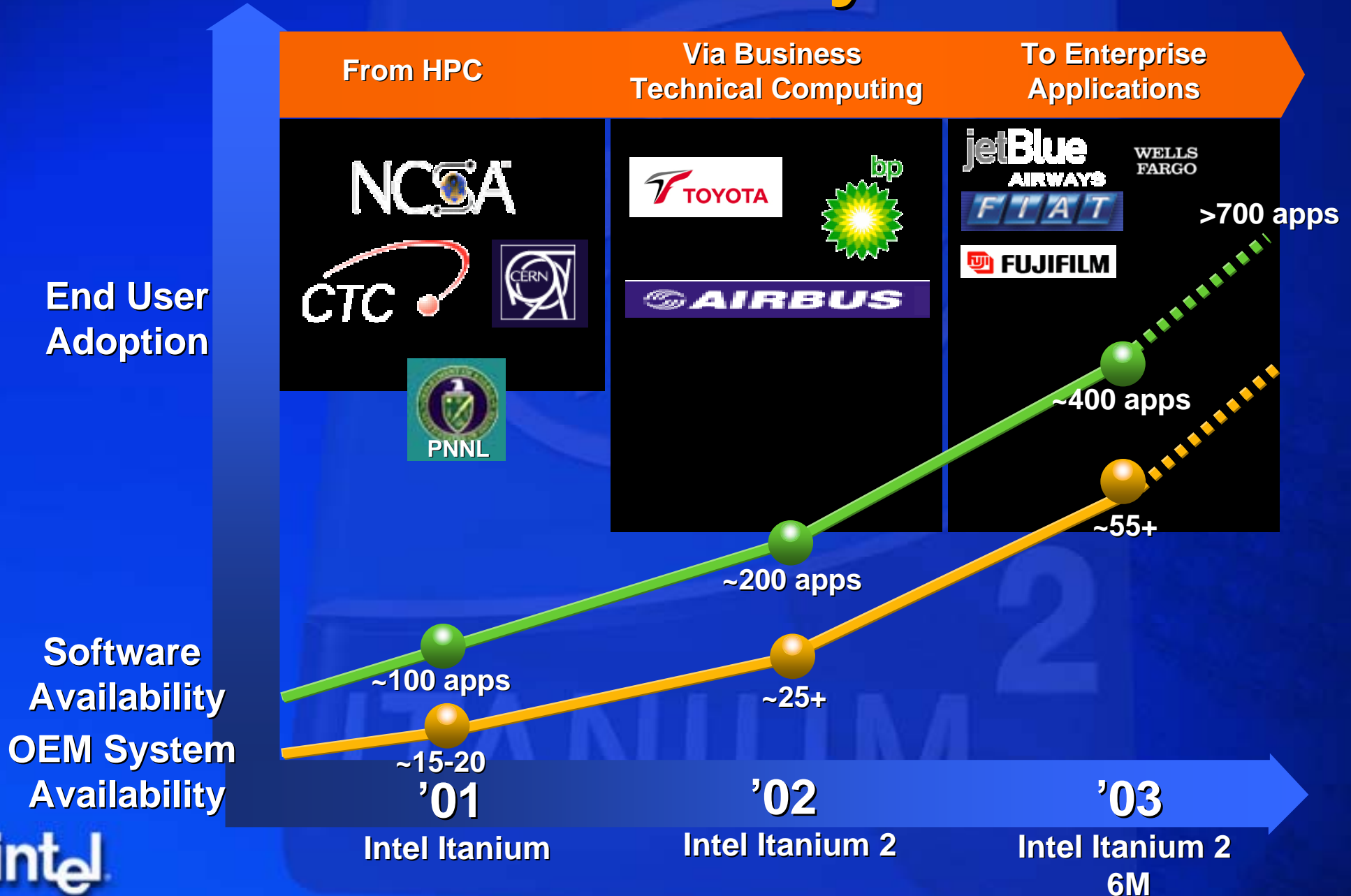
2004

Future

Next Generation Platforms With More Advanced Features Planned



Intel® Itanium® Family Momentum





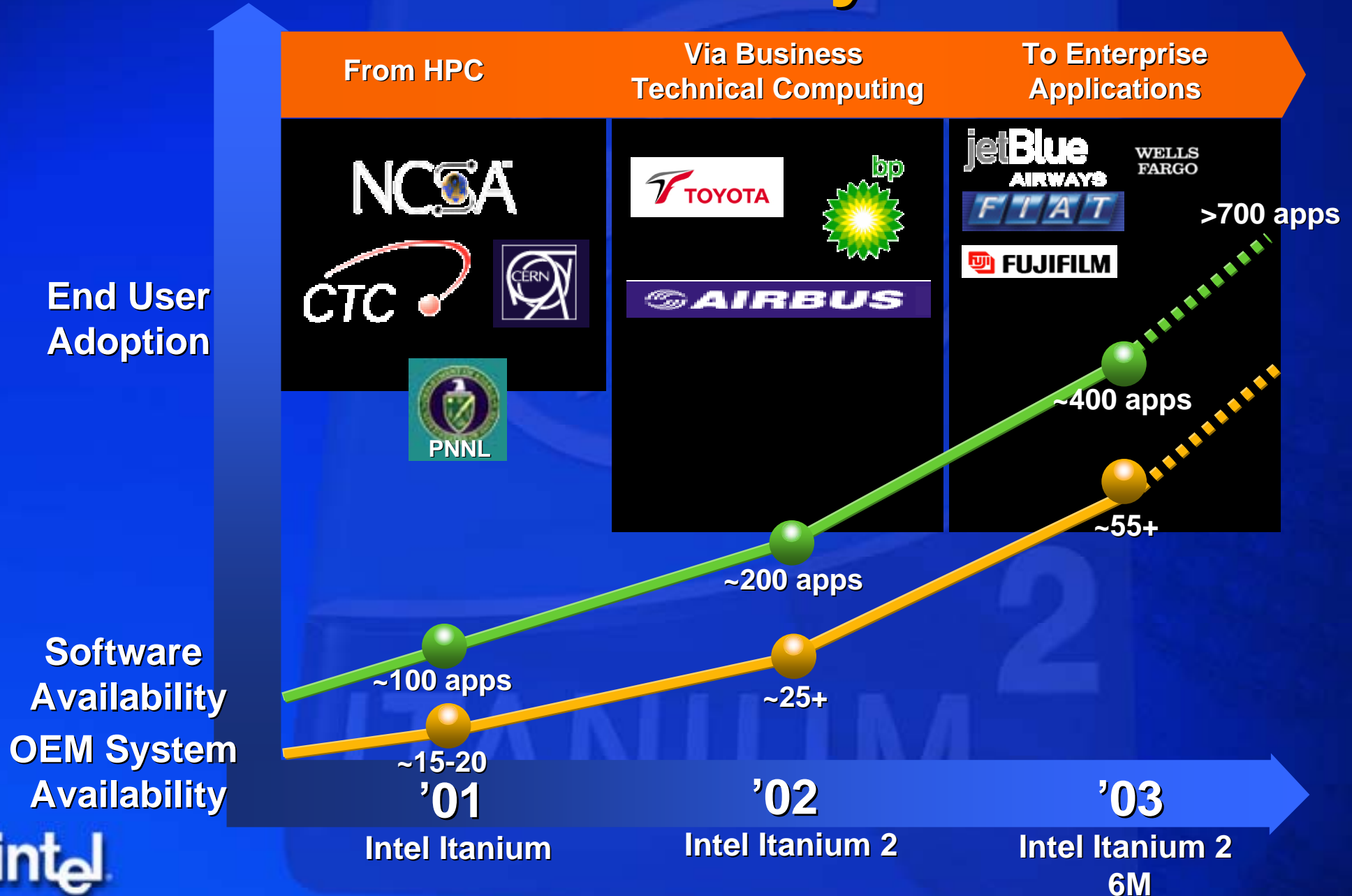
Susan Whitney

General Manager eServer x-Series,
IBM Systems Group



Video

Intel® Itanium® Family Momentum





Better



More Value



Cheaper

Inside Intel's Enterprise



Intel's Business Runs On IA

Building Value for the Enterprise – End to End

Value Driving Features for the Future



- More performance and manageability in the Data center
- More performance and Hyper-Threading on client



Rick Christianson

Product Development and Engineering
Sea Ray Corporation



Sea Ray

The Standard of Excellence™



BRUNSWICK
GENUINE INGENUITY

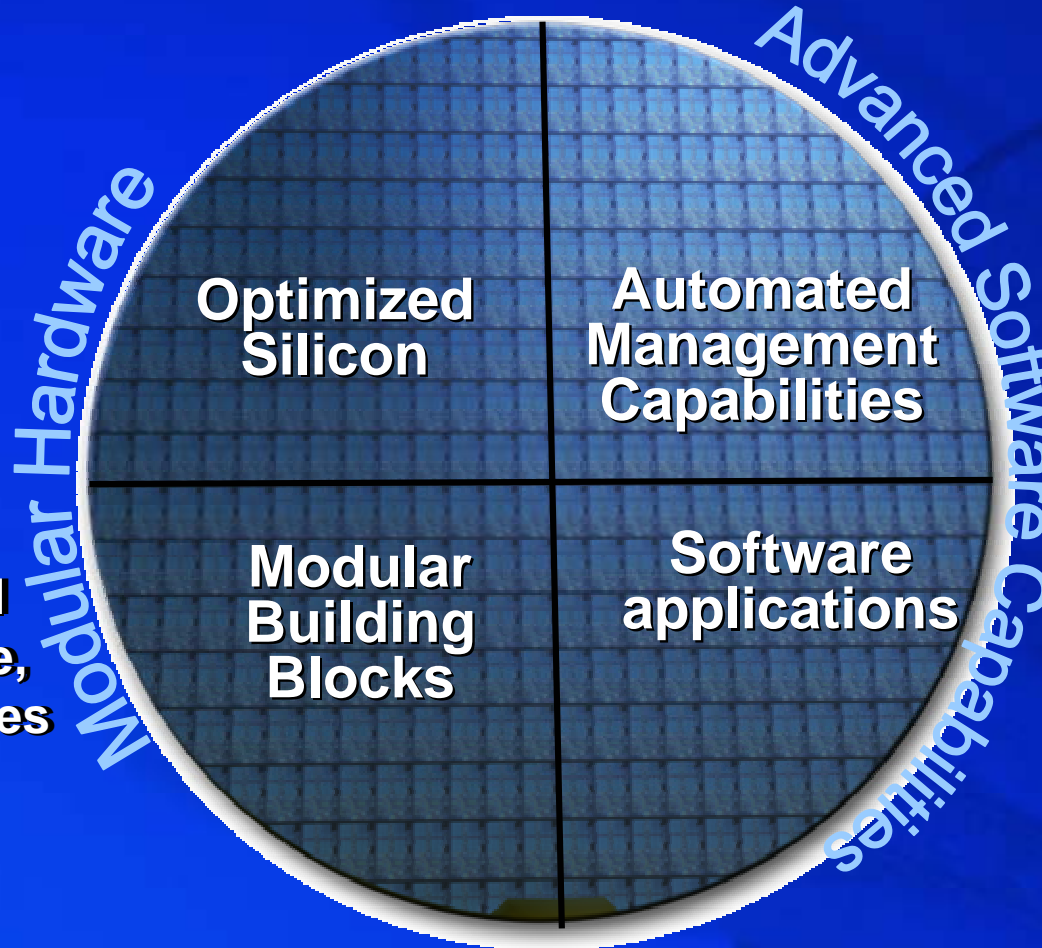


Enterprise Modular Computing

Processors
Chipsets
Communication
Switch

Scalable & Virtual
Compute, Storage,
Network Resources

Blade Systems



Policy-based
Automation

Management
Interface
Standards

Optimized For
Distributed
Environments

Virtualization
Capabilities



Evolving Model of IT Capabilities

New Intel® Enterprise Blade Server Family

Today, Intel launches innovative blade building blocks!



DP compute **blade**
powered by the Intel®
eon™ processor

Q4'03 Intel Xeon
processor **MP** based
blade



VERITAS and Intel Team to Bring Automated Provisioning Capability to Modular Server Market
INTEL DEVELOPER FORUM -- SAN JOSE, Calif. -- September 17, 2003 – VERITAS Software Corporation today announced a new agreement with Intel to bring VERITAS provisioning software to Intel's enterprise modular computing platform, including its new Intel® Blade Server family of products.

Intel® Deployment Manager
by VERITAS® OpForce™



Participate in the Modular Computing Market Segment

Intel® Xeon™ Processor Family Roadmap

Multi-Processor (MP) Capable

Intel® Xeon™
Processor MP
(Gallatin)
2.8 GHz, 2M

Intel Xeon
Processor MP
(Gallatin-4M)
3.0 GHz, 4M

Potomac
*Higher Frequency,
Larger Caches,
90nm*

Tulsa
Dual Core

Dual Processor (DP) Capable

Intel Xeon
Processor
≥3.06 GHz, 1M

Nocona
*>3.2 GHz, 1M
800 MHz FSB
90nm*

Jayhawk
*Higher frequency,
800 MHz FSB
90nm*

2003

2004

Future

Next Generation Platforms With More
Advanced Features Planned



Intel® Enterprise IA-32 Chipset Roadmap

Intel® Xeon™ Processor MP

OEM/Enabled Chipsets

Intel "Twin Castle"

PCI-Express, DDR2

4P
"Potomac" 

Intel Xeon™ Processor

Performance
DP Server

Intel® E7501

533 MHz FSB,

Intel "Lindenhurst"

PCI-Express, DDR2

"Nocona" 

Value
DP Server

Intel "Lindenhurst-VS"

PCI-Express, DDR2

"Nocona" 

Workstation

Intel® E7505

533 MHz FSB, AGP 8x

Intel "Tumwater"

PCI-Express, DDR2

"Nocona" 

2003

2004





Top-to-Bottom Intel IA-32 Enterprise Chip Sets
with PCI-Express in 2004



Neil Hand

Director of Worldwide Marketing,
Dell Product Group



DELL

intel

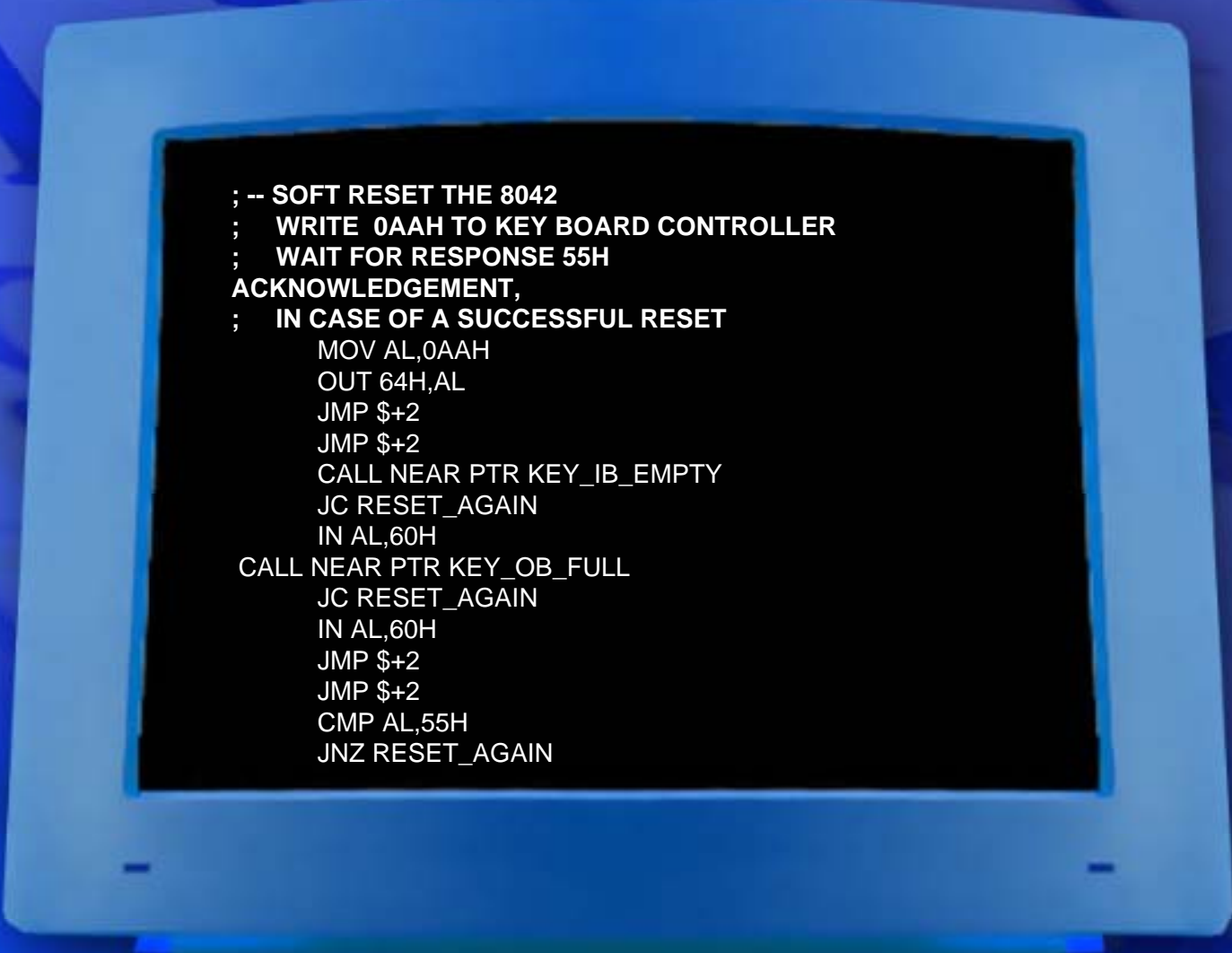
PCI Express Leaders at IDF

First Demonstrations of
Production Ready PCI
Express **Silicon** at IDF

Intel is
On Track

The **Industry**
is **With Us**

After 23 Years, It's Time To Move Beyond BIOS to a Better Common Software Architecture...

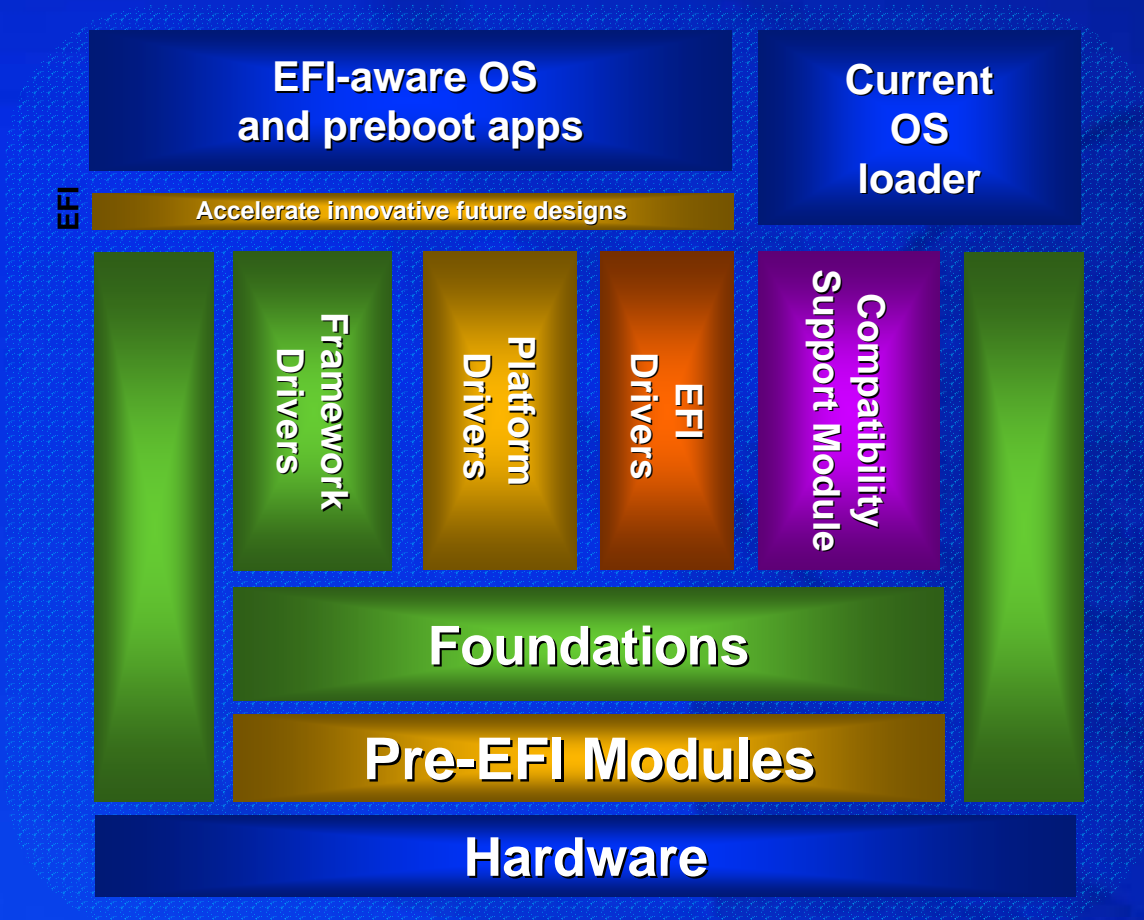
A vintage computer monitor with a light blue frame and a black screen. The screen displays a block of assembly code in white text. The background of the entire slide is a dark blue gradient with faint, stylized clock faces and arrows, suggesting a timeline or progression.

```
; -- SOFT RESET THE 8042
;  WRITE 0AAH TO KEY BOARD CONTROLLER
;  WAIT FOR RESPONSE 55H
;  ACKNOWLEDGEMENT,
;  IN CASE OF A SUCCESSFUL RESET
    MOV AL,0AAH
    OUT 64H,AL
    JMP $+2
    JMP $+2
    CALL NEAR PTR KEY_IB_EMPTY
    JC RESET_AGAIN
    IN AL,60H
    CALL NEAR PTR KEY_OB_FULL
    JC RESET_AGAIN
    IN AL,60H
    JMP $+2
    JMP $+2
    CMP AL,55H
    JNZ RESET_AGAIN
```


Intel Platform Innovation Framework for EFI Demonstration

```
; - SOFT RESET THE 8042
; WRITE 0AAH TO KEY BOARD CONTROLLER
; WAIT FOR RESPONSE 55H
ACKNOWLEDGEMENT,
; IN CASE OF A SUCCESSFUL RESET
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    JC RESET_AGAIN
    IN AL,60H
    JMP $+2
    JMP $+2
    CMP AL,55H
    JNZ RESET_AGAIN
```

Introducing the Intel Platform Innovation Framework for EFI



Accelerating Innovation

“ We support Intel for championing a specification that helps improve data center manageability and lower costs. EFI provides a much needed specification for bootstrapping Intel Xeon and Itanium processor-based servers, to enable rapid provisioning of Windows and Linux, and will allow Opsware to bring greater automation and cost reductions to the data center.”



Marc Andreessen
Opsware Inc.

“ Microsoft is working closely with Intel and the industry on moving EFI to an open industry Forum so that we can significantly improve the customer experience.

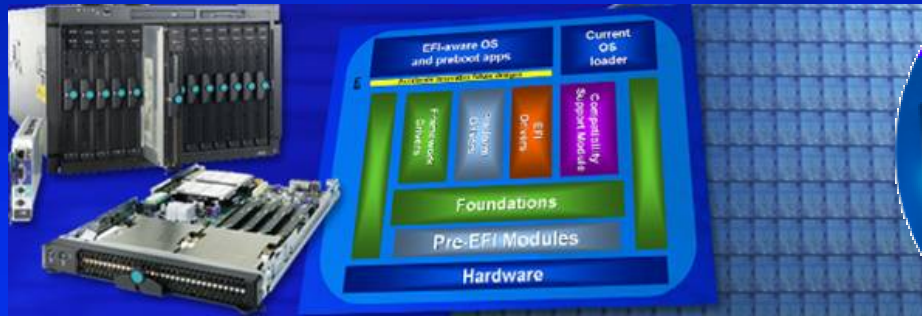
This includes bringing the open industry standard EFI-32 to the Longhorn generation of Windows products.

Now is the time to create innovative systems that offer stunning simplicity throughout the whole system lifecycle, including firmware maintenance.”



Jim Allchin
Microsoft

The Momentum Continues...



Better



Faster



More Value

intel